MSOP-8 Package ESD Array SE02P8M14HA ESD Surge Protection Low Clamping Voltage

Our Product Introduction

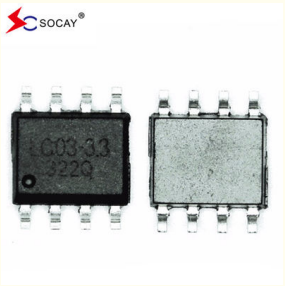
Basic Information

- Place of Origin: Shenzhen Guangdong China
- Brand Name: SOCAY
- Certification: REACH RoHS ISO
- Model Number: SE02P8M14HA
- Minimum Order Quantity: 3000PCS
- Price: Negotiable
- Delivery Time: 5-8 work days

Product Specification

- Component Name: ESD Arrays
- Component Package: SE02P8M14HA
- Vrwm (Max.): 2.8V
- Ir (Typ.): 0.1V
- Ir (Max.): 1.0μA
- Vt1 (Typ.): 3.7V
- Vh: 3.0~4.0V
- Vc (Max.) (Ipp=2A): 5.0V
- Vc (Max.) (Ipp=10A): 8.0V
- Vc (Max.) (Ipp=24A): 14.0V
- Cj (Typ.): 1.5pF
- Cj (Max.): 2.5pF
- Highlight: **MSOP-8 ESD Array**, **ESD Array SE02P8M14HA**, **MSOP-8 ESD Surge Protection**

More Images



Product Description

MSOP-8 Package ESD Arrays SE02P8M14HA Ultra-Low Capacitance 1.5pF @ 3.0V (Typical) ESD Surge Protection

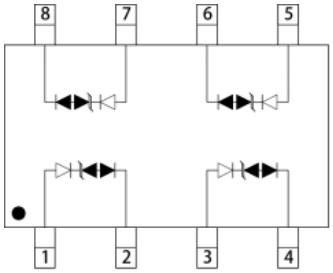
ESD Arrays DATASHEET: SE02P8M14HA_v2207.1.pdf

ESD Arrays Features:
Package optimized for high-speed lines
Low capacitance: 1.5pF @ 3.0V (Typical)
Low leakage current: 0.1uA @ V_{RWM} (Typical)
Low operating and clamping voltage

ESD Arrays Applications:
10/100M Ethernet Ports
WAN/LAN Equipment
Desktops, Servers and Notebooks
Cellular Phones

ESD Arrays Mechanical Characteristics:
MSOP-8 package
Flammability Rating: UL 94V-0
Marking: Part number
Quantity Per Reel:3,000 pcs
Reel size: 13 inch

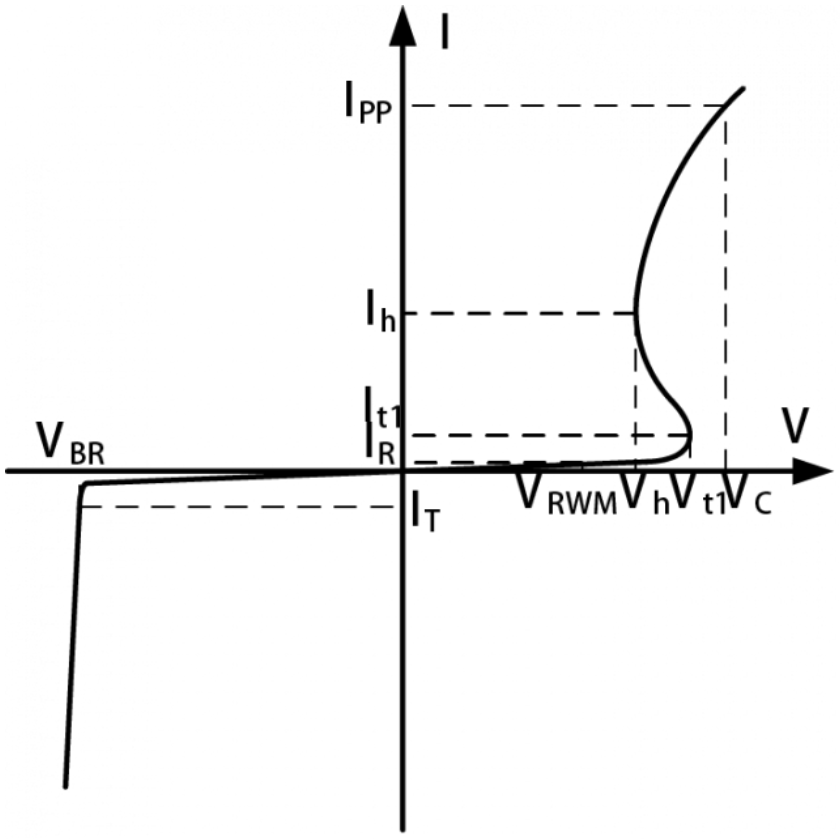
ESD Arrays Functional Diagram:



ESD Arrays Absolute Maximum Ratings (T_A=25 unless otherwise specified):

Symbol	Parameter	Value	Units
VESD	ESD per IEC 61000-4-2(Air) ESD per IEC 61000-4-2 (Contact)	±30 ±30	KV
TOPT	Operating Temperature	-55to+125	
TSTG	Storage Temperature	-55to+150	
TLST	Lead Soldering Temperature	260(10sec.)	

I-V Curve Characteristics:



Uni-Directional TVS

Symbol	Parameter
VRWM	Nominal Reverse Working Voltage
IR	Reverse Leakage Current @ VRWM
Vt1	Trigger Voltage
It1	Trigger Current @ Vt1
Vh	Holding Voltage
Ih	Holding Current @ Vh
VC	Clamping Voltage @ IPP
IPP	Maximum Peak Pulse Current
VBR	Breakdown Voltage @ IT
CJ	Parasitic Capacitance

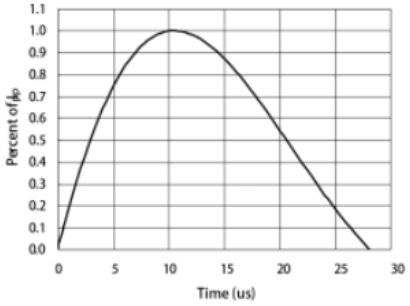
Electrical Characteristics (TA = 25 unless otherwise specified):

Symbol	Test Condition	Minimum	Typical	Maximum	Unit
V_{RWM}	--	--	--	2.8	V
I_R	V_{RWM}=2.8V, T=25	--	0.1	1.0	μA
V_{t1}	I_{t1}=100μA	3.0	3.7	4.5	V
V_h	I_h=10mA	3.0	--	4.0	V
V_C	I_{PP}=2A, tp=8/20μs (Each Line)	--	--	5.0	V
V_C	I_{PP}=10A, tp=8/20μs (Each Line)	--	--	8.0	V
V_C	I_{PP}=24A, tp=8/20μs (Each Line)	--	--	14.0	V
C_J	V_R=3.0V, f=1MHz (Each Line)	--	1.5	2.5	pF

ESD Arrays Characteristic Curves:

Fig1. 8/20μs Pulse Waveform

Fig2 Clamping Voltage V_C vs. Current I_{PP}



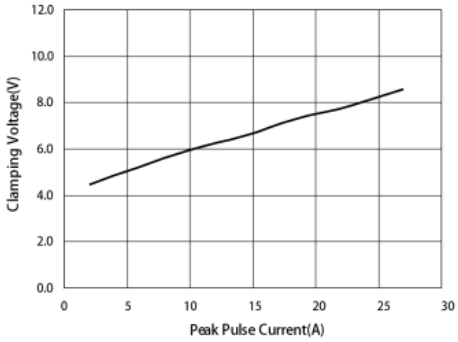


Fig3. ESD Clamping of I/O to GND (+8kV Contact per IEC 61000-4-2)

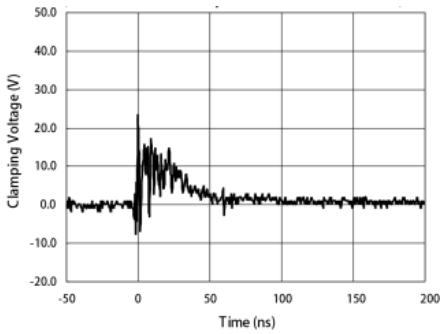
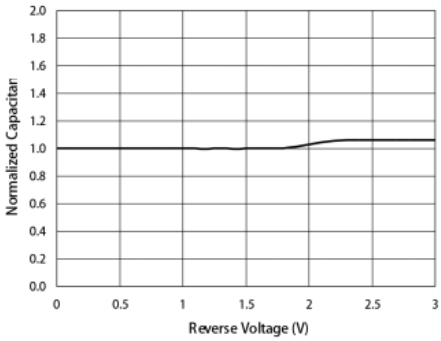
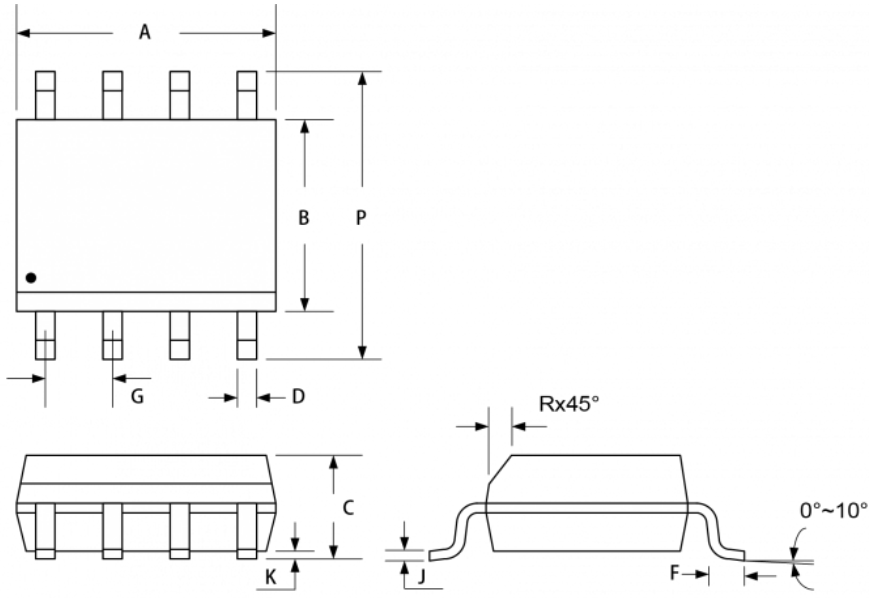


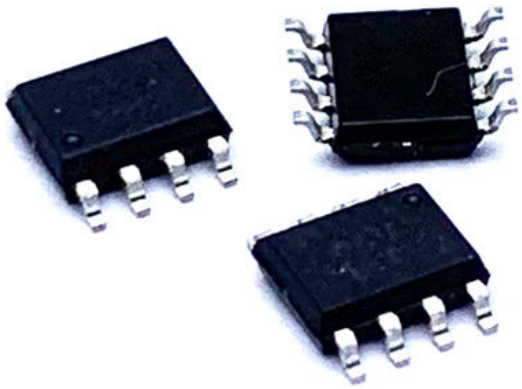
Fig4. Normalized Capacitance vs. Voltage



MSOP-8 Package Outline & Dimensions:



Symbol	Millimeters		Inches	
	Minimum	Maximum	Minimum	Maximum
A	4.800	5.000	0.189	0.196
B	3.800	4.000	0.150	0.157
C	1.350	1.750	0.054	0.068
D	0.350	0.490	0.014	0.019
F	0.400	1.250	0.016	0.049
G	1.27 BSC.		0.05 BSC.	
J	0.180	0.250	0.007	0.009
K	0.100	0.250	0.004	0.008
P	5.800	6.200	0.229	0.244
R	0.250	0.500	0.010	0.019



Shenzhen Socay Electronics Co., Ltd.

+8618126201429 sylvia@socay.com socaydiode.com

4/F, Block C, HeHengXing Science & Technology Park, 19 MinQing Road, LongHua District, Shenzhen City, GuangDong Province, China